

REMARKS

In the present Office Action, claims 2, 4, 6 – 11, and 35 – 37 were examined. Claims 2, 4, 6 – 11 and 35 – 37 are rejected and no claims are allowed.

By this Amendment, claims 4, 7 -9, 35, and 37 have been amended, claims 1, 12 – 34 and 38 - 39 have been canceled, and claim 40 has been added. Accordingly, claims 2 - 11, 35 – 37 and 40 are presented for further examination. No new matter has been added. By this Amendment, claims 2 – 11, 35 – 37 and 39 - 40 are believed to be in condition for allowance.

The Restriction Requirement mailed January 26, 2004 has been made final by the Examiner. Accordingly, the Examiner withdrew claims 12 – 34 and 39. Applicants herein cancel claims 12 – 34 and 39 without prejudice and reserve the right to file divisional applications on the non-elected claims pursuant to 35 USC §121 and claiming priority to this application under 35 USC §120.

Claim 4 was objected to because of a typographical error. Applicants wish to thank the Examiner for pointing out this error, and herein amend claim 4 to correct the error. Accordingly, Applicants respectfully requests the Examiner to withdraw the present objection.

Claims 4, 7- 9 and 35 – 37 were rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention.

Specifically, the Examiner states that in claims 7 – 9, the phrase “said copper pyrrithione adduct” lacks antecedent basis. Applicants herein amend claims 7 – 9 to overcome the instant rejection. Accordingly, Applicants submit this rejection has been overcome and respectfully request the Examiner withdraw the rejection.

The Examiner also indicates that in claim 35 and 37 the phrase “the coating material” lacks antecedent basis. Applicants herein amend claims 35 and 37 to replace “the coating material” with “the shell.” Accordingly, Applicants submit this rejection has been overcome and respectfully request the Examiner withdraw the rejection.

The Examiner also indicates that in claim 36, the phrase “the coating diameter” lacks antecedent basis. Applicants herein amend claim 36 by replacing the objectionable phrase with “a coating diameter” in order to overcome this rejection. Accordingly,

Applicants submit this rejection has been overcome and respectfully request the Examiner to withdraw the rejection.

Additionally, the Examiner has indicated that the phrase “the idealized spherical particle” in claim 36 also lacks antecedent basis. Applicants herein amend the phrase in claim 36 to recite “the particle.” Applicants submit this rejection has been overcome and respectfully request the Examiner to withdraw the rejection.

The Examiner also indicates that the terms “idealized spheres” and “idealized spherical particle” in claims 36 – 37 are relative terms that render the claims indefinite. Applicants herein amend claims 36 and 37 to remove the term “idealized.” Accordingly, Applicants submit that this rejection has been overcome and respectfully request the Examiner to withdraw the rejection.

Finally, the Examiner takes the position at page 4 of the outstanding Office Action that in claim 4 the presence of a narrow limitation (e.g. about 60%-about 90% copper containing powder or compound and therefore about 10% - 40% copper pyrithione) and a broader limitation of 1:20 and 20:1 copper pyrithione:copper core causes the claim to be indefinite. Applicants herein amend claim 4 to recite:

“The composition of claim 2 wherein said copper-powder or copper containing compound is present in said composition in an amount of from about 99 to about 60% by weight, based upon the total weight of said composition.”

Applicants submit that by this amendment this rejection has been overcome. Withdrawal of the rejection is respectfully requested.

Claims 2, 4 and 6 – 10 were rejected under 35 USC §102(b) as anticipated by, or in the alternative under 35 USC §103(a) as obvious over U.S. Patent No. 5,540,860 to Hosseini et al. alone or if necessary, in further view of the specification.

Applicants respectfully submit that this rejection is untenable and should be withdrawn. Hosseini et al. relates to a process for producing a gel-free dispersion or solution of copper pyrithione employing at least one surfactant. The working examples of Hosseini et al. relate to the preparation of copper pyrithione. Such preparation does not teach or suggest the biocidal composition comprising composite particles that is claimed in the present invention.

Hosseini et al. nowhere discloses composite particles comprising a shell and a core as described and claimed in the present invention. Moreover, Hosseini et al. does not disclose or suggest a shell of any composite particle that contains any range of amounts of copper pyrithione in the shell of a composite particle, much less the instantly claimed range.

Since Hosseini et al. does not teach or suggest the instantly claimed biocidal composition, the outstanding claim rejection based upon this reference is untenable and should be withdrawn. Applicants assert that a *prima facie* case of obviousness has not been established.

Claims 2, 4 and 6 – 11 are rejected under 35 USC 103(a) as being unpatentable over Hosseini et al. alone or view of the specification and U.S. Patent No. 5,342,437 to Gavin et al. The Examiner notes in the outstanding office action that Hosseini et al. particles differ from the composition of claim 10 and claim 11 by failing to teach utilizing a “fatty acid coating.” However, the Examiner notes that Gavin et al. teach incorporating fatty acids into pyrithione compositions prior to incorporation into manufacturing articles as a means to solve a gellation problem. Nonetheless, the teaching of Gavin et al. does not suggest biocidal compositions of comprising composite particles, much less suggest the instantly claimed ones.

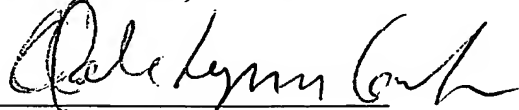
The other relied-upon reference has been discussed above. The rejection based on the combination of these reference is untenable because the result sought to be achieved by the combination of the references does not disclose or suggest the biocidal composition of the present invention. For example, Hosseini et al. discloses a gel-free dispersion or solution of copper pyrithione in the presence of at least one surfactant. Gavin et al. discloses that incorporation into a zinc pyrithione and cuprous oxide containing paint of a carboxylic acid reduces the tendency of the paint to gel relative to a comparative paint without carboxylic acid. Neither the Hosseini et al. nor the Gavin et al. references disclose a biocidal composition comprising composite particles that include a shell and a core, much less a composite particle as instantly claimed. Instead, these references relate to disparate fields of technology since Gavin et al relates to zinc pyrithione containing paints which are subject to gelation, Hosseini et al relates to copper pyrithione containing paints which aren't. Accordingly, the rejection of the instant claims based upon that combination is believed to be untenable and should be withdrawn.

Claims 2, 4, 6 – 10 and 35 – 37 are rejected under 35 USC §103(a) as being unpatentable over Hosseini et al. alone in view of the specification (e.g. page 7, figures and examples) and U.S. Patent No. 5,518,774 to Kappock et al. Applicants respectfully submit that this rejection is untenable and should be withdrawn.

The Examiner notes in the outstanding office action, Kappock et al. teach transchelation. However, contrary to the present invention, Kappock et al. teaches complete transchelation of zinc with a soluble pyrithione salt to produce an insoluble pyrithione salt. Accordingly, as Hosseini et al. does not teach or suggest the biocidal composition of the present invention, and Kappock et al. teaches away from forming the biocidal compositions of the present invention, and in favor complete transchelation. The instantly claimed composite particles are not formed by complete transchelation since only “a portion” of the core copper or copper containing compound is reacted with pyrithione (see instant claim). Applicants respectfully submit that this rejection is untenable and should be withdrawn.

Accordingly, Applicant submits that none of the references, alone or in combination, anticipate or make obvious the invention as presently claimed and that the application is now in condition for allowance. Therefore, Applicant respectfully requests reconsideration and further examination of the application and the Examiner is respectfully requested to take such proper actions so that a patent will issue herefrom as soon as possible. If the Examiner has any questions or believes that a discussion with Applicant's attorney would expedite prosecution, the Examiner is invited and encouraged to contact the undersigned at the telephone number below. Please apply any credits or charge any deficiencies to our Deposit Account No. 23-1665.

Respectfully submitted,
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